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EXAMINER	
JERABEK, KELLY L	

ART UNIT	PAPER NUMBER
2612	

DATE MAILED: 06/17/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/654,745	ORLICKI ET AL.	
	Examiner	Art Unit	
	Kelly L. Jerabek	2612	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *07 February 2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-24* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-24* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

Applicant's arguments filed 2/7/2005 have been fully considered but they are not persuasive.

Response to Remarks:

Applicant's arguments regarding claim 1(Amendment page 12) state that the claim does not call for the accessory device to receive power from the basic device, as in the Takahashi arrangement and that the claim is directed to an arrangement in which the accessory device generates its own power, but under control of the basic device. The Examiner acknowledges that the claim does not call for the accessory device to receive power from the basic device, however the Takahashi reference discloses all of the limitations of amended claim 1. Takahashi discloses in figure 1 an image input/output system that is built by connecting an accessory device (117) such as a digital camera and a basic device (118) such as a printer (col. 3, lines 18-28). The basic device includes a data I/F unit (111) used to send information between the basic device (118) and the accessory device (117) (col. 3, lines 37-42). The Examiner is reading the data I/F unit (111) as a docking interface because it is used to relay information between the basic device (118) and the accessory device (117). The

accessory device (117) includes a control processor (104) and a power supply unit (108) (col. 3, lines 37-59). The power supply unit (108) includes a power detection unit (202) that measures the power supply capacity supplied from the basic device (118), when it is confirmed that the power supply capacity form the printer (118) is large enough to operate the accessory device (117) the power is supplied by the basic device (118), otherwise power is supplied by battery (109) (col. 3, lines 43-59). Therefore, the power supply unit (108) supplies electrical energy to the control processor (104) in response to a control signal (signal indicating power supply from printer is large enough/not large enough) received from the basic device (118). Also, since the power supply is switched from battery (109) to printer (118) (or vice versa) corresponding to the control signal it can be seen that the electrical energy is maintained during fluctuations of the control signal (signal indicating power supply from printer is large enough/not large enough). In addition, imaged data sensed by the accessory device (117) is sent to the basic device (118) to be printed out and when the basic device (118) and the accessory device (117) are connected a signal indicating the status of the basic device (118) is received by the accessory device (117); the signals are sent via a two-way interface (col. 3, line 43 – col. 4, line 5). Thus it can be seen that the signal indicating the status of the basic device provides information indicative of whether or not an application involving the use of the accessory device (117) (image data transfer) is currently running on the basic device (118).

Applicant's arguments (Amendment pages 12-13) state that if the supplied power from the printer in Takahashi is itself the claimed control signal, then there is no power supply unit in the image sensing device that supplies electrical energy responsive to the supplied power and maintains the electrical energy during fluctuations in the supplied power. The Examiner respectfully disagrees. First, the signal indicating whether the power supply from printer is large enough/not large enough is what is being read as the claimed control signal. Takahashi states that the accessory device (117) includes a control processor (104) and a power supply unit (108) (col. 3, lines 37-59). **The Examiner is reading the power management unit (108) as a power supply unit since it supplies power to the camera using either the battery (109) or the printer (118).** The power supply unit (108) includes a power detection unit (202) that measures the power supply capacity supplied from the basic device (118), when it is confirmed that the power supply capacity form the printer (118) is large enough to operate the accessory device (117) the power is supplied by the basic device (118), otherwise power is supplied by battery (109) (col. 3, lines 43-59). Therefore, the power supply unit (108) supplies electrical energy to the control processor (104) in response to a control signal **(signal indicating power supply from printer is large enough/not large enough)** received from the basic device (118). Also, since the power supply is switched from battery (109) to printer (118) (or vice versa) corresponding to the control signal it can seen that the electrical energy is maintained during fluctuations of the control signal (signal indicating power supply from printer is large enough/not large enough).

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-5,7, and 21-24 rejected under 35 U.S.C. 102(e) as being ~~anticipated~~ anticipated. by Takahashi et al. US 6,580,460.

Re claim 1, Takahashi discloses in figure 1 an image input/output system that is built by connecting an accessory device (117) such as a digital camera and a basic device (118) such as a printer (col. 3, lines 18-28). The basic device includes a data I/F unit (111) used to send information between the basic device (118) and the accessory device (117) (col. 3, lines 37-42). The Examiner is reading the data I/F unit (111) as a docking interface because it is used to relay information between the basic device (118) and the accessory device (117). The accessory device (117) includes a control processor (104) and a power supply unit (108) (col. 3, lines 37-59). The power supply

unit (108) includes a power detection unit (202) that measures the power supply capacity supplied from the basic device (118), when it is confirmed that the power supply capacity form the printer (118) is large enough to operate the accessory device (117) the power is supplied by the basic device (118), otherwise power is supplied by battery (109) (col. 3, lines 43-59). Therefore, the power supply unit (108) supplies electrical energy to the control processor (104) in response to a control signal (signal indicating power supply from printer is large enough/not large enough) received from the basic device (118). Also, since the power supply is switched from battery (109) to printer (118) (or vice versa) corresponding to the control signal it can seen that the electrical energy is maintained during fluctuations of the control signal (signal indicating power supply from printer is large enough/not large enough). In addition, imaged data sensed by the accessory device (117) is sent to the basic device (118) to be printed out and when the basic device (118) and the accessory device (117) are connected a signal indicating the status of the basic device (118) is received by the accessory device (117); the signals are sent via a two-way interface (col. 3, line 43 – col. 4, line 5). Thus it can be seen that the signal indicating the status of the basic device provides information indicative of whether or not an application involving the use of the accessory device (117) (image data transfer) is currently running on the basic device (118).

Re claim 2, the power supply unit (108) is capable of supplying power to the image sensing device (117) from two different sources depending on the output of a power detection unit (202). Depending on the power supply capacity supplied from the

printer, the power supply of the digital image-sensing device (117) is switched from a battery (109) to that of a printer (118) (col. 3, lines 43-59). Therefore, in the case that the power supply capacity supplied from the printer is not large enough to power the image-sensing device, the battery (109) is used. Thus, the power supply unit (108) maintains the electrical energy for operating the digital image-sensing device (117) using the battery (109) in response to a further control signal (signal indicating power supply capacity supplied from printer is not large enough).

Re claim 3, the power supply unit (108) includes a power detection unit (202) that receives the power supply capacity (control signal and further control signal) of the printer (col. 3, lines 43-47). The power supply unit (108) also includes a battery (109) that supplies electrical energy to the image-sensing device (117) in the event that the printer (118) does not supply the electrical energy.

Re claim 4, the power supply unit (108) includes a power detection unit (202) that receives the power supply capacity (control signal and further control signal) of the printer (col. 3, lines 43-47). If it is determined that the power supply capacity of the printer (118) is large enough (power activation signal is generated), the power supply of the digital image-sensing device (117) is switched from the batter (109) to the printer (118) (col. 3, lines 29-53; col. 13, lines 1-20). Therefore, there must be a switching element (first switching element) in the printer responsive to the power supply capacity signal sent by the image-sensing device (117) in order to determine if the power supply

capacity is large enough (power activation signal is generated). Also, there is a second switching element (201) that supplies electric power supplied from the cable connected to the printer (118) to the image sensing device (117) in response to the power activation signal (col. 13, lines 11-20).

Re claim 5, the image-sensing device (117) disclosed by Takahashi includes a battery (109). The switching control unit (201) controls the switching of the power between the battery (109) and the power management unit (119) of the printer (118) (col. 13, lines 11-20). Therefore, the second switching element (201) is used to couple the battery (109) to the power supply (108).

Re claim 7, the power supply unit (108) includes a power detection unit (202) that receives the power supply capacity (control signal and further control signal) of the printer (col. 3, lines 43-47). The power supply unit (108) also includes a battery (109) that supplies electrical energy to the image-sensing device (117) in the event that the printer (118) does not supply the electrical energy. Therefore, since the image-sensing device (117) is capable of being powered by either a battery (109) or the power supply of a printer (118) the Examiner is reading the power supply unit (108) as a switched mode power supply.

Re claim 21, Takahashi discloses a method of managing the power requirements of an accessory device (117) coupled to a basic device (118) (col. 3, lines 37-59). The

power supply unit (108) includes a power detection unit (202) that measures the power supply capacity supplied from the basic device (118), when it is confirmed that the power supply capacity form the printer (118) is large enough to operate the accessory device (117) the power is supplied by the basic device (118), otherwise power is supplied by battery (109) (col. 3, lines 43-59). Therefore, the basic device (118) generates a first control signal (signal indicating power supply from printer is large enough) and supplies the first control signal to the accessory device (117); also the power supply unit (108) is activated in response to the firs control signal (signal indicating power supply from printer is large enough) to supply electrical power from the power supply unit (108) to a control processor (104) of the accessory device (117); a second control signal (signal indicating power supply from printer is not large enough) is generated and supplied to the power supply unit (108) and power is supplied by battery (109). Thus, a latching operation of the power supply unit (108) in response to the second control signal (signal indicating power supply from printer is not large enough) is performed (battery 109 supplies power) to maintain the supply of electrical power from the power supply unit (108) to control processor (104) regardless of the state of the first control signal.

Re claim 22, Takahashi states that the power management unit (108) includes a timer (203) that measures the idling time of the device. When the idling time reaches a prescribed time and the power detection unit (202) detects that the remaining charge on the battery of the image-sensing device (117) is larger than a prescribed value, the

power supplies of the printer (118) and the image-sensing device (117) are turned off (col. 13, lines 37-49). Therefore, latching operation of the power supply unit is maintained for a predetermined time.

Re claim 23, see claim 22. The power supplies of the printer (118) and the image-sensing device (117) are turned off after a predetermined period of time (col. 13, lines 37-49). Therefore, the latching operation is discontinued.

Re claim 24, Takahashi states that if the remaining charge on the battery is smaller than the prescribed value, a battery charging mode is started, and the battery is charged (col. 13, lines 46-49). Therefore, an accessory operation (recharging the battery (109)) is performed in response to an activity command. The predetermined time period must also be reset after completion of the accessory operation (recharge) because the reference states that the timer starts from the operation end timing and measures non-operation time (col. 13, lines 37-40). Therefore, the camera is not idle during recharging so the idle timer will not start until charging stops.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 6 and 12-20 rejected under 35 U.S.C. 103(a) as being ~~anticipated~~ obvious. by Takahashi et al. US 6,580,460.

Re claim 13, Takahashi discloses in figure 1 an image input/output system that is built by connecting an accessory device (117) such as a digital camera and a basic device (118) such as a printer (col. 3, lines 18-28). The basic device includes a data I/F unit (111) used to send information between the basic device (118) and the accessory device (117) (col. 3, lines 37-42). The Examiner is reading the data I/F unit (111) as a docking interface because it is used to relay information between the basic device (118) and the accessory device (117). The image input/output system includes an image processing unit (102) and a control processor (104) that controls image-processing circuitry to perform an image capture (col. 3, lines 29-42). The accessory device (117) includes a control processor (104) and a power supply unit (108) (col. 3, lines 37-59). The power supply unit (108) includes a power detection unit (202) that measures the power supply capacity supplied from the basic device (118), when it is confirmed that the power supply capacity form the printer (118) is large enough to operate the accessory device (117) the power is supplied by the basic device (118), otherwise power is supplied by battery (109) (col. 3, lines 43-59). Therefore, the power supply unit (108) supplies electrical energy to the control processor (104) in response to a control signal (signal indicating power supply from printer is large enough/not large enough) received from the basic device (118). The control signal must have a predetermined

signal characteristic (power supply from printer is large enough to power camera) in order for the digital camera accessory device to transition from a powered-off state to a powered-on state by using power from the printer. Also, since the power supply is switched from battery (109) to printer (118) (or vice versa) corresponding to the control signal it can seen that the electrical energy is maintained during fluctuations of the control signal (signal indicating power supply from printer is large enough/not large enough). Although Takahashi discloses a digital camera as the digital image-sensing device (117), he does not specifically state that the digital camera includes a lens system. However, the Examiner takes **Official Notice** that digital cameras including lens systems are well known and used in the art. Therefore, it would have been obvious for one skilled in the art to be motivated to include a lens system in the digital camera disclosed by Takahashi.

Re claim 14, the power supply unit (108) is capable of supplying power to the image sensing device (117) from two different sources depending on the output of a power detection unit (202). Depending on the power supply capacity supplied from the printer, the power supply of the digital image-sensing device (117) is switched from a battery (109) to that of a printer (118) (col. 3, lines 43-59). Therefore, in the case that the power supply capacity supplied from the printer is not large enough to power the image-sensing device, the battery (109) is used. Thus, the power supply unit (108) maintains the electrical energy for operating the digital image-sensing device (117)

using the battery (109) in response to a further control signal (power supply capacity supplied from printer is not large enough).

Re claim 15, the power supply unit (108) includes a power detection unit (202) that receives the power supply capacity (control signal and further control signal) of the printer (col. 3, lines 43-47). The power supply unit (108) also includes a battery (109) that supplies electrical energy to the image-sensing device (117) in the event that the printer (118) does not supply the electrical energy.

Re claim 16, the power supply unit (108) includes a power detection unit (202) that receives the power supply capacity (control signal and further control signal) of the printer (col. 3, lines 43-47). If it is determined that the power supply capacity of the printer (118) is large enough (power activation signal is generated), the power supply of the digital image-sensing device (117) is switched from the batter (109) to the printer (118) (col. 3, lines 29-53; col. 13, lines 1-20). Therefore, there must be a switching element (first switching element) in the printer responsive to the power supply capacity signal sent by the image-sensing device (117) in order to determine if the power supply capacity is large enough (power activation signal is generated). Also, there is a second switching element (201) that supplies electric power supplied from the cable connected to the printer (118) to the image sensing device (117) in response to the power activation signal (col. 13, lines 11-20).

Re claim 17, the image-sensing device (117) disclosed by Takahashi includes a battery (109). The switching control unit (201) controls the switching of the power between the battery (109) and the power management unit (119) of the printer (118) (col. 13, lines 11-20). Therefore, the second switching element (201) is used to couple the battery (109) to the power supply (108).

Re claims 6 and 18, the Examiner takes **Official Notice** that it is well known in the art to use bipolar transistors and field effect transistors as switching elements in digital cameras. Therefore, it would have been obvious for one skilled in the art to have been motivated to use bipolar transistors and field effect transistors as switching elements in the digital camera disclosed by Takahashi.

Re claim 19, the power supply unit (108) includes a power detection unit (202) that receives the power supply capacity (control signal and further control signal) of the printer (col. 3, lines 43-47). The power supply unit (108) also includes a battery (109) that supplies electrical energy to the image-sensing device (117) in the event that the printer (118) does not supply the electrical energy. Therefore, since the image-sensing device (117) is capable of being powered by either a battery (109) or the power supply of a printer (118) the Examiner is reading the power supply unit (108) as a switched mode power supply.

Re claims 12 and 20, the power supply unit (108) includes a switching control unit (201) that switches the power supply source from the battery (109) to the power management unit (119) in the printer (118) when it is determined that the printer (118) is capable of powering the image-sensing device (117) (col. 13, lines 11-20). The Examiner is reading the switching control unit (201) a power management circuit because the switching control circuit latches a power supply of the printer (118) to a logic level required to maintain electrical energy. Despite this, Takahashi does not specifically state that the switching control unit (201) includes a capacitor and resistor network comprising at leas one capacitor and one resistor. However, the Examiner takes **Official Notice** that it is well known in the art to use a capacitor and resistor network comprising at least one capacitor and one resistor to perform a latching operation. Therefore, it would have been obvious for one skilled in the art to have been motivated to include a capacitor and resistor network for latching in the switching control unit disclosed by Takahashi.

Claims 8-11 rejected under 35 U.S.C. 103(a) as being ~~anticipated~~ obvious by Takahashi et al. US 6,580,460 in view of Schlack et al. US 5,392,447.

Re claim 8, Takahashi discloses all of the limitations of claim 1 above. However, in the Takahashi reference the basic device is a printer (118) and the accessory device is an image-sensing device (117) such as a digital camera (fig. 1; col. 3, lines 18-42).

However, Takahashi does not mention a configuration of coupling a camera accessory device to a basic device such as a personal digital assistant (PDA)

Schlack discloses in figure 21, a PDA that is connected an electronic camera unit having a lens (90) that focuses an image of a subject onto an imaging device provided within the body of the main unit (10) of the PDA (col. 12, lines 16-25). The electronic camera module is connected to the main unit (10) of the PDA via the docking connector (72) coupling (col. 12, lines 38-46). Therefore, it would have been obvious for one skilled in the art to have been motivated to couple a PDA to a digital camera via an interface as disclosed by Schlack rather than coupling a printer to a digital camera via an interface as disclosed by Takahashi. Doing so would provide a means for causing the output of an electronic imaging device to be displayed by a display unit so that the display unit can be used as an active viewfinder (Schlack: col. 12, lines 27-37).

Re claim 9, see claim 8. The accessory device disclosed by Schlack in figure 21 is an electronic camera.

Re claim 10, Schlack discloses in figure 21, a PDA that is connected an electronic camera unit having a lens (90) that focuses an image of a subject onto an imaging device provided within the body of the main unit (10) of the PDA (col. 12, lines 16-25).

Re claim 11, Schlack states that the output of an electronic imaging device is displayed by a display unit (14) so that the display unit can be used as an active viewfinder (col. 12, lines 27-37).

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Kinoshita (US 4,928,137) discloses an image sensing apparatus having a low-resolution monitor means for reducing the amount of information in an image signal. The information regarding reducing power consumption is pertinent material.

Kawamura (US 5,784,105) discloses a video camera with built-in secondary battery. The information regarding camera power management is pertinent material.

Ohnogi (US 6,661,462) discloses a digital camera selectively powered by an internal and an external power supply. The information regarding camera power management is pertinent material.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Contacts

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kelly L. Jerabek whose telephone number is **(571) 272-7312**. The examiner can normally be reached on Monday - Friday (8:00 AM - 5:00 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wendy Garber can be reached on **(571) 272-7308**. The fax phone number for submitting all Official communications is 703-872-9306. The fax phone

number for submitting informal communications such as drafts, proposed amendments, etc., may be faxed directly to the Examiner at **(571) 273-7312**.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

KLJ

AUNG MOE
PRIMARY EXAMINER